

CLASSIFICATION: UNCLASSIFIED

## Exhibit P-40, BUDGET ITEM JUSTIFICATION

DATE:

February 2004

## APPROPRIATION/BUDGET ACTIVITY

Aircraft Procurement, Navy/APN-5 Aircraft Modifications

## P-1 ITEM NOMENCLATURE

ADVERSARY SERIES

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QTY		A										
COST (In Millions)	48.2	A		8.2	2.6	5.5	5.0	2.6			13.7	85.8

These line items fund modifications to an inventory of 36 F-5E/F Adversary aircraft, and 14 F-16A/B Adversary aircraft. It allows the U.S. Navy to maintain as close a standardized configuration with the Air Force as possible based on need. It also allows the Navy to initiate unique structural or avionics modifications. The overall goal of the modifications budgeted in FY 2005 is to incorporate into the airframe and engines, selected Air Force approved Time-Compliance Technical Orders (TCTO's) to improve safety and reliability. The specific modifications budgeted and programmed are F-5 Structural Repair Program and F-16 A/B Stand-Up.

\* As per 7100 AIR-10.1.2KD/006 Reprogramming Action Requiring Congressional Prior Approval dated 8 May 2002, a reprogramming action was submitted and approved realigning \$500,000 of FY02 APN-5 funds to APN-4 to establish an F-5 Adversary Aircraft procurement program to procure one-F-5E aircraft from the Government of Switzerland. Additionally, the reprogramming action established an F-5 Adversary Aircraft Modification Engineering Change Proposal within this OSIP used to convert a total of 32 Swiss F-5E aircraft into a Navy approved configuration. The 32 Swiss F-5E aircraft will be procured using the above mentioned APN-4 funding line at a total cost of \$16M.

(TOA, \$ in Millions)

OSIP No.	Description	Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
29-81	F-5 STRUCTURAL REPAIR PROGRAM	23.8	6.3	2.6	5.5	5.0	2.6				45.8
13-02	F-16A/B	24.4	1.9							13.7	40.1
<b>Total</b>		<b>48.2</b>	<b>8.2</b>	<b>2.6</b>	<b>5.5</b>	<b>5.0</b>	<b>2.6</b>			<b>13.7</b>	<b>85.8</b>

Note: Totals may not add due to rounding.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: F-5 STRUCTURAL REPAIR PROGRAM (OSIP 29-81)MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY AIRCRAFTTYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION/JUSTIFICATION: The Navy F-5E/F Adversary aircraft inventory, and all applicable funds are for 36 aircraft. USAF updated durability, damage and tolerance analysis, structural inspection, full scale fatigue testing and counting accelerometer data has identified structural fatigue in wings and fuselage areas. The US Navy plans to utilize these aircraft in the Adversary mission through FY2015, and beyond. However, aircraft will be grounded prior to 2015, when maximum fatigue life is reached on major structural components, unless further analysis and replacements are procured and installed. The Navy plans to replace the current high time fuselage with low time Swiss F-5E Fuselages. Also, Wings, as well as, Horizontal Stabilizers, Vertical Stabilizers, Upper/Lower Cockpit Longerons, and Dorsal Longerons require replacement as they reach their fatigue life limit. Installation of a Structural Data Recorder is planned to ensure accurate recording of flight profile data which can provide up to a 25% increase in usage of these high cost fatigue critical components. Also, repair of other critical safety-of-flight systems such as, Flight Controls and Canopy Latching mechanisms will be accomplished under this program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All components and systems required for this program are already qualified, and/or approved for Navy use. No Operational Testing is envisioned under this program.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
Various Kits	291	1.2																		
Wings	4	3.9																		
Vertical Stabilizer	21	3.6																		
Vertical Stabilizer Install Kit	10	0.2																		
Cockpit Longeron	8	0.6	5	0.3	5	0.3	9	0.6												
Horizontal Stabilizer	13	1.5																		
Dorsal Longeron	21	1.6																		
SDR Kits	10	0.9																		
Canopy Latch Mod/Refurb Kits	36	0.2																		
Swiss/US Conversion Kit	1	0.1	4	0.2	4	0.2	9	0.4												
Installation Kits N/R		3.4		2.8																
Installation Equipment																				
Installation Equipment N/R																				
Engineering Change Orders																				
Data		1.2																		
Training Equipment																				
Support Equipment																				
ILS		1.9		0.4		0.1		0.7												
Other Support		1.0		0.7		0.3		0.8												
Interim Contractor Support																				
Installation Cost	291	0.4																		
Installation V-Stab	5	0.4	4	0.3	4	0.3	4	0.3												
Installation Dorsal Longeron	12	1.0																		
Installation Cockpit Longeron	6	0.6	4	0.4	4	0.4	9	0.9												
Installation Swiss to US Conversion	1	0.2	4	0.9	4	0.9	9	1.6												
Installation SDR	5	0.2	5	0.2																
<b>Total Procurement</b>		<b>23.8</b>		<b>6.3</b>		<b>2.6</b>		<b>5.5</b>												

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K

## Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F-5 ADVERSARY** MODIFICATION TITLE: **VERTICAL STABILIZER**INSTALLATION INFORMATION: **DEPOT LEVEL**METHOD OF IMPLEMENTATION: **CONCURRENT WITH PPHASE DEPOT MAINTENANCE**ADMINISTRATIVE LEADTIME: **1 Months** PRODUCTION LEADTIME: **10 Months**CONTRACT DATES: FY 2003: **Nov-02** FY 2004: **Nov -03** FY 2005: **Nov-03**DELIVERY DATE: FY 2003: **Jul-03** FY 2004: **Jul-04** FY 2005: **Jul-05**

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY ( ) kits	5	0.4	4	0.3	4	0.3	4	0.3												
FY 2003 ( ) kits																				
FY 2004 ( ) kits																				
FY 2005 ( ) kits																				
FY 2006 ( ) kits																				
FY 2007 ( ) kits																				
FY 2008 ( ) kits																				
FY 2009 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>5</b>	<b>0.4</b>	<b>4</b>	<b>0.3</b>	<b>4</b>	<b>0.3</b>	<b>4</b>	<b>0.3</b>												

## Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5		2	2			2	1	1			2	2								
Out	5		2	2			2	1	1			2	2								

	FY 2008				FY 2009				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

## Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F-5 ADVERSARY** MODIFICATION TITLE: **COCKPIT LONGERON**INSTALLATION INFORMATION: **DEPOT LEVEL**METHOD OF IMPLEMENTATION: **CONCURRENT with PHASE DEPOT MAINTENANCE**ADMINISTRATIVE LEADTIME: **1 Months** PRODUCTION LEADTIME: **8 Months**CONTRACT DATES: FY 2003: **Nov -02** FY 2004: **Nov -03** FY 2005: **Nov-04**DELIVERY DATE: FY 2003: **Jul-03** FY 2004: **Jul-04** FY 2005: **Jul-05**

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY ( ) kits	6	0.6	2	0.2																
FY 2003 ( ) kits			2	0.2	3	0.2														
FY 2004 ( ) kits					1	0.2	4	0.4												
FY 2005 ( ) kits							5	0.5												
FY 2006 ( ) kits																				
FY 2007 ( ) kits																				
FY 2008 ( ) kits																				
FY 2009 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>6</b>	<b>0.6</b>	<b>4</b>	<b>0.4</b>	<b>4</b>	<b>0.4</b>	<b>9</b>	<b>0.9</b>												

## Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	6			1	3		3		1		4		5								
Out	6			3			1	2	1	1		3									

	FY 2008				FY 2009				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

## Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: F-5 ADVERSARY MODIFICATION TITLE: STRUCTURAL DATA RECORDERINSTALLATION INFORMATION: **DEPOT LEVEL**METHOD OF IMPLEMENTATION: CONCURRENT with PHASE DEPOT MAINTENANCEADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 7 MonthsCONTRACT DATES: FY 2003: Nov -02 FY 2004: N/A FY 2005: N/ADELIVERY DATE: FY 2003: May-03 FY 2004: N/A FY 2005: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY ( ) kits	5	0.2	5	0.2																
FY 2003 ( ) kits																				
FY 2004 ( ) kits																				
FY 2005 ( ) kits																				
FY 2006 ( ) kits																				
FY 2007 ( ) kits																				
FY 2008 ( ) kits																				
FY 2009 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>5</b>	<b>0.2</b>	<b>5</b>	<b>0.2</b>																

## Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	5			3	2																
Out	5			3	2																

	FY 2008				FY 2009				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

## Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: **F-5 ADVERSARY**MODIFICATION TITLE: **SWISS TO US CONVERSION**INSTALLATION INFORMATION: **DEPOT LEVEL**METHOD OF IMPLEMENTATION: **CONCURRENT with PHASE DEPOT MAINTENANCE**ADMINISTRATIVE LEADTIME: **1 Months**PRODUCTION LEADTIME: **1 Months**CONTRACT DATES: FY 2003: **Nov-02**FY 2004: **Nov-03**FY 2005: **Nov-04**DELIVERY DATE: FY 2003: **Dec-02**FY 2004: **Dec-03**FY 2005: **Dec-04**

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY ( ) kits	1	0.2																		
FY 2003 ( ) kits			4	0.9																
FY 2004 ( ) kits					4	0.9														
FY 2005 ( ) kits							9	1.6												
FY 2006 ( ) kits																				
FY 2007 ( ) kits																				
FY 2008 ( ) kits																				
FY 2009 ( ) kits																				
To Complete ( ) kits																				
<b>TOTAL</b>	<b>1</b>	<b>0.2</b>	<b>4</b>	<b>0.9</b>	<b>4</b>	<b>0.9</b>	<b>9</b>	<b>1.6</b>												

## Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	1			1	3		2	2			4	5									
Out				1	2	2	2	1	1		2	4	3								

	FY 2008				FY 2009				To Complete	Total
	1	2	3	4	1	2	3	4		
In										
Out										

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: F-16A/B STAND-UP (OSIP-13-02)MODELS OF SYSTEMS AFFECTED: F-16 ADVERSARY AIRCRAFTTYPE MODIFICATION: SAFETY/RELIABILITY

DESCRIPTION/JUSTIFICATION: OSD ordered Air Force and Navy to split 28 F-16's left over from the cancelled Peace Gate Sale to Pakistan. OSIP funding will support the induction of 14 F-16 aircraft into the Adversary fleet at NSAWC, Fallon Nevada. The US Navy plans to utilize these aircraft as a Category-IV Adversary aircraft, simulating the threat of modern high performance fighters. The Navy will operate the 14 F-16's in a training program, providing approximately 300 sorties per aircraft per year. All modifications under this OSIP are to incorporate engine and airframe TCTO's. The Airframe Mod Incorporation will include a Structural Data Recorder.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: OSD directed USN to stand-up 14 F-16 Adversary aircraft at NSAWC. All modifications will install previously qualified systems or equipment. Ten F-16A and four F-16Bs have been allotted to the Navy. No DT or OT is required. IOC occurred October 2002 with FOC in September 2003.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
Various Kits																				
Airframe Mod Incorporation	14	2.0																		
Engine Update Modification	14	11.1																		
Structural Data Recorder																				
CADS/PADS	14	0.7																		
Installation Kits N/R																				
Installation Equipment																				
Installation Equipment N/R																				
Engineering Change Orders																				
Data		1.0																		
Training Equipment																				
Support Equipment		4.5		0.9																
ILS		1.2		0.6																
Other Support		3.8		0.4																
Interim Contractor Support																				
Installation Cost																				
<b>Total Procurement</b>		<b>24.4</b>		<b>1.9</b>																

Notes:

1. Totals may not add due to rounding
2. Asterisk indicates amount less than \$50K